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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,318	12/28/2001	Tetsuya Tabe	217803US2	4759

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EXAMINER

MITCHELL, JASON D

ART UNIT PAPER NUMBER

2124

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/028,318	TABE ET AL.	
	Examiner	Art Unit	
	Jason Mitchell	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/28/01 & 4/8/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application claims priority to JP 2000-402,738 filed on 12/28/2000. For priority to be perfected, and English translation must be provided.
2. Claims 1-6 are pending in this case.

Claim Objections

3. **Claim 3** is objected to because of the following informalities: On page 13 line 20 claim 3 states 'so that it takes control' it is unclear what 'it' refers to. For the sake of this examination examiner's best understanding will be used and the claim will be treated as reading 'so that said function module takes control'. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/34290 to Koath (Koath).**

Regarding Claim 1: Koath discloses a method of extending debug functions of a debugger system for debugging the operation of a target system (pg. 1, line 3 'This invention relates to system debugging software'), said method comprising: registering by a framework module (pg. 5, lines 6-8 'a request to the main debug task to add the

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debug object to a main debug task list'), a function module (pg. 5, lines 6-8 'debug object') in which is provided an option menu information item (pg. 4, lines 24-28 'The PrintMenu function produces menu information') for use in generating an option menu (pg. 4, lines 24-28 'generate menus'), through which a predetermined debug function is controlled (pg. 4, lines 24-28 'control debug objects'); registering said option menu information item by an interface generation unit (pg. 5, lines 15-16 'a list of debug objects') which includes an option menu generation unit (pg 5, lines 15-16 'The PrintTopMenu function produces a menu') and creating said option menu with reference to said option menu information item (pg. 5, lines 11-13 'The router ... receives information produced by the debug objects and sends this information ... for display') in order to control the operation of the debugger system through a manipulation screen thereof (pg.5 lines 16-20 'console operator can use this menu to switch among the different debug objects').

Regarding Claim 2: The rejection of claim 1 is incorporated; further Koath discloses that when the debug function is selected in the debugger system to use the debug function for debugging the operation of the target system (pg. 6, lines 19-21 'If the console operator chooses a debugging function'), said framework module serves to call said function module corresponding to the debug function as selected (pg. 6, 19-21 'the HandleNewInput function calls the corresponding debug object function' and pg.6 lines 14-17 'causing the main debug task to ... route further console input to the chosen debug object's HandleNewInput function'); and displaying said option menu in the manipulation screen (pg. 6, lines 1-3 'send ... menus to the main debug task for console

display') in order that said debugger system performs debugging in accordance with the debug function as selected by manipulation of said option menu (pg.6 lines 19-21 'calls the corresponding debug object function').

Regarding Claim 3: With the exception of the limitations addressed below, claim 3 is a system related to the methods of claims 1 and 2 and is rejected with the same prior art references; further, Koath discloses a test tool configured to save said function module to be registered in said debugger program so that it (said function module) takes control of the debugging processes (pg. 6, lines 16-17 'route further console input to the chosen debug object') and to make it possible that said function module is dynamically linked to said debugger program when the function module is registered (pg. 5, lines 6-10 'each debug object ... upon instantiation sends a request ... to add the debug object to a main debug task list').

Please note that while Koath does not explicitly disclose saving the function module, it is inherent in a software system (pg. 2, line 1 'implemented in object-oriented software') that the modules be saved on a computer readable medium.

Regarding Claim 4: Claim 4 is a program product related to the method of claim 1 and is rejected with the same prior art references.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/34290 to Koath (Koath) in view of US 6,173,419 to Barnett (Barnett).

Regarding Claim 5: Koath discloses a debugger program product comprising a computer readable medium having computer program logic stored therein for debugging the operation of a target system (pg. 1, line 3 'This invention relates to system debugging software'), said debugger program product including: a framework module (pg. 4, line 7 'a main debug task') configured such that it can be dynamically linked to a function module (pg. 4, lines 7-8 'debug objects') which serves to provide a debug function for use in debugging the operation of said target system (pg. 4, lines 11-12 'the debug objects ... provide debugging functions'). But does not disclose a simulator capable of performing the simulation of said target system.

Barnett teaches a simulator capable of performing the simulation of said target system (col. 2, lines 13-16 'an emulated target micro-controller') in order to debug the operation of said target system (col. 2, lines 31-33 'a software debug program that works ... to monitor the emulated micro-controller') in an analogous art for the purpose of providing 'an emulator for debugging software that operates in real time, is economical to create, and may be programmed to have a variety of configurations' (col. 2, lines 6-8).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the simulator disclosed in Barnett (col. 2, lines 13-16) to simulate the target system before applying the debug functions disclosed in Koath (pg. 4, lines 7-8) to the simulated target system, because one of ordinary skill in the art would have

desired the variety of configurations (col. 2, lines 6-8 'may be programmed to have a variety of configurations') taught in Barnett when debugging the system disclosed in Koath (pg. 3, lines 21-24 'The terminal 12 provides slots that accept different hardware cards').

Regarding Claim 6: The rejection of claim 5 is incorporated further; Koath discloses that said function module is provided an option menu information item (pg. 4, lines 24-28 'The PrintMenu function produces menu information') for use in generating an option menu (pg. 4, lines 24-28 'generate menus') through which a predetermined debug function is controlled (pg. 4, lines 24-28 'control debug objects'); and wherein said framework module refers to said option menu information item for creating said option menu (pg. 5, lines 11-13 'The router ... receives information produced by the debug objects and sends this information ... for display') with reference to the option menu information item in response to a request by a user in order to control the operation of the debugger system through a manipulation screen thereof (pg.5 lines 16-20 'consol operator can use this menu to switch among the different debug objects').

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,633,888 B1 to Kobayashi discloses a debugging system, US 5,828,824 to Swoboda discloses a debugging system, US 6,223,306 B1 to Silva et al. discloses a debugging system US 6,028,996 to Sniderman et al. discloses an emulator, US 5,923,867 discloses a simulation method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is 571-272-3728. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Mitchell
10/13/04



ANIL KHATRI
PRIMARY EXAMINER